

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE COMMISSION**

In the Matter of:

POWERTECH (USA), INC.

(Dewey-Burdock In Situ Uranium Recovery
Facility)

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) Docket No.: 40-9075-MLA

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) Date: June 22, 2015
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**BRIEF OF POWERTECH (USA), INC. IN OPPOSITION TO CONSOLIDATED
INTERVENORS' PETITION FOR REVIEW OF LBP-15-16**

I. INTRODUCTION

Pursuant to 10 CFR § 2.1212 and 2.341(b)(4), the licensee Powertech (USA), Inc.¹ (Powertech) hereby submits this Brief in Opposition to Consolidated Intervenor's (CI) Petition for Review of the Atomic Safety and Licensing Board's (Licensing Board) Partial Initial Decision in LBP-15-16², dated April 30, 2015, and an earlier ruling in LBP-10-16³, regarding Powertech's United States Nuclear Regulatory Commission (NRC)-licensed Dewey-Burdock *in situ* leach uranium recovery (ISR) project in the State of South Dakota. This administrative proceeding involved seven (7) admitted contentions, two (2) of which were decided by the Licensing Board in a manner adverse to Powertech and NRC Staff (Contentions 1A and 1B).

¹ CI alleges that Powertech Uranium Corp. no longer exists. *See* CI Petition for Review of LBP-15-16 (May 26, 2015) at 1, fn. 2. CI fails to note that Powertech's NRC source and byproduct materials license was issued to Powertech (USA), Inc., which still serves as the licensee. In addition, CI alleges that Powertech is now "Azarga." *Id.* at 8. However, the licensee, Powertech (USA), Inc., has not changed and its parent company, Powertech Uranium Corp., actually acquired Azarga Resources Ltd. in a reverse merger and simply changed its name to Azarga Uranium Corp. But, nothing about the current licensee has changed.

² *See Powertech (USA), Inc.* (Dewey-Burdock ISR Project), LBP-15-16, 81 NRC __ (April 30, 2015) (slip op.).

³ *See Powertech (USA) Inc.* (Dewey-Burdock ISR Project), LBP-10-16, 72 NRC 361 (August 5, 2010).

For the reasons discussed below, Powertech respectfully requests that the Commission deny CI's Petition for Review in its entirety and find that Powertech's NRC License SUA-1600 should be upheld.

II. BACKGROUND AND PROCEDURAL HISTORY

Pursuant to the Commission's 10 CFR Part 40 and Appendix A uranium recovery regulatory program and associated guidance, Powertech submitted a license application for the Dewey-Burdock ISR Project to NRC for its review and approval on February 25, 2009.

After its license application was made publicly available, on January 5, 2010, NRC Staff issued a Federal Register notice providing interested stakeholders and other members of the public with an opportunity to request a hearing on the application. On March 12, 2010, the Commission established the Licensing Board. On March 8, 2010, and April 6, 2010, CI and the Oglala Sioux Tribe (hereinafter the "Tribe") submitted requests for a hearing and proposed contentions. On August 5, 2010, the Licensing Board issued LBP-10-16 in which CI and the Tribe each were granted standing to intervene and several contentions for both parties were admitted.

On March 18, 2013, NRC Staff issued its Safety Evaluation Report (SER) detailing the analyses and conclusions of its safety review for all resource areas for the Project which stated that, absent an environmental concern to the contrary, Powertech's requested license should be issued.⁴ On January 29, 2014, NRC Staff issued the Final Supplemental Environmental Impact Statement (FSEIS) which recommended that, absent a safety-related concern to the contrary, Powertech's requested license should be issued.⁵ On April 8, 2014, NRC Staff issued notice to the Licensing Board that it had issued Powertech NRC License No. SUA-1600, stating that "the

⁴ See NRC Staff Exhibits NRC-134 and NRC-135. It is worth noting that CI made no challenges to the safety/technical conclusions in NRC Staff's SER.

⁵ See NRC Staff Exhibits. NRC-008-A & 008-B.

Staff finds that the application complies with the Atomic Energy Act and the NRC's regulations...."⁶ The final record of decision (ROD) included a Programmatic Agreement (PA),⁷ which was the culmination of the National Historic Preservation Act (NHPA)⁸ Section 106 compliance process under 36 CFR Part 800 *et seq.* for which NRC served as the lead agency.

On August 19-21, 2014, the Licensing Board held an evidentiary hearing on the seven admitted contentions in Rapid City, South Dakota. On January 9, 2015, all parties submitted proposed findings of fact and conclusions of law to the Licensing Board. On January 29, 2015, all parties submitted replies to the previously submitted proposals.

On April 30, 2015, the Licensing Board issued LBP-15-16 in which five (5) of the seven (7) admitted contentions were resolved in favor of Powertech and NRC Staff. More specifically, the Licensing Board found in favor of Powertech and NRC Staff on all contentions related to groundwater protection (Contentions 2-4) and on National Environmental Policy Act (NEPA)⁹ issues related to mitigation and connected actions (Contentions 6 and 9). The Licensing Board also retained jurisdiction over the resolution of its ruling on Contentions 1A and 1B relating to historic and cultural resources and compliance with Section 106 of the NHPA.

⁶ See ML14098A492.

⁷ The PA and associated correspondence from the ACHP was executed by the Advisory Council on Historic Preservation (ACHP) on April 7, 2014, and signed by NRC Staff, BLM, the South Dakota State Historic Preservation Office (SHPO) and Powertech. See Exs. NRC-018-A-(18-H).

⁸ See 16 U.S.C. § 470.

⁹ See generally 42 USC §§ 4321-4347.

III. STANDARD OF REVIEW

As a general matter, the Commission conducts review in response to a petition for review filed pursuant to 10 C.F.R. § 2.341 (formerly 2.786). In determining whether to grant, as a matter of discretion, a petition for review of a Licensing Board Order, the Commission gives due weight to the existence of a substantial question with respect to the considerations set forth in 10 C.F.R. § 2.341(b). The Commission may, as a matter of discretion, grant review of Licensing Board orders based on whether a “substantial question” exists in light of the following considerations:

- (1) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
- (2) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
- (3) A substantial and important question of law, policy or discretion has been raised;
- (4) The conduct of the proceeding involved a prejudicial procedural error; or
- (5) Any other consideration which the Commission may deem to be in the public interest.

10 C.F.R. § 2.341(b) (formerly § 2.786(b)(4)); *see also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-16, 62 NRC 1, 3 (2005); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 410 (2005); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-10, 61 NRC 131, 132 (2004).

The Commission may dismiss its grant of review even though the parties have briefed the issues. *Tennessee Valley Authority*, (Browns Ferry Nuclear Plant, Units 1, 2, & 3), CLI-82-26, 16 NRC 880, 881 (1982), *citing Jones v. State Board of Education*, 397 U.S. 31 (1970).

10 C.F.R. § 2.341 (formerly § 2.786) describes when the Commission “may” grant a petition for review but does not mandate any circumstances under which the Commission must take review. *Louisiana Energy Services* (Claiborne Enrichment Center), CLI-97-12, 46 NRC 52, 53 (1997).

NRC precedent further addresses when the Commission may review the Board's contention admissibility and merits determinations. For contention admissibility determinations, the Commission accords substantial deference to the Board's rulings. *Amergen Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006). More specifically, the Commission defers to the Board's contention admissibility rulings unless the appeal points to an "error of law or abuse of discretion." *Crow Butte Resources, Inc.* (North Trend Expansion Area), CLI-09-12, 69 NRC at 543 (2009). Furthermore, while a party may petition for review of the Board's rulings on contention admissibility, the party must do more than simply restate its contention and cite additional support for the contention. In order for the party's petition to be granted, it must show that the Board committed an error of law or abuse of discretion when ruling on the contention. *Shieldalloy Metallurgical Corp.* (Newfield, New Jersey Facility), CLI-07-20, 65 NRC 499, 503-05 (2007).

The Commission also accords substantial deference to the Board's rulings on the merits of admitted contentions. Where the Board's decision rests on carefully made factual findings, the Commission typically will not disturb the decision. *Hydro Resources, Inc.* (Crownpoint Uranium Project), CLI-01-04, 53 NRC 31, 45 (2001); *see also id.* at 45–46 (holding that where the Presiding Officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed). The Commission standard of "clear error" for overturning a Board's factual findings is quite high, particularly with respect to intricate factual findings based on expert witness testimony and credibility determinations. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-08, 58 NRC 11, 26-27 (2003). In

particular, the fact that the Board accorded greater weight to one party's evidence than to the others' is not a basis for overturning the Board's decision. *David Geisen*, CLI-10-23, 72 NRC 210, 241 (2010).

Licensing Board findings may be rejected or modified if, after giving the Licensing Board's decision the probative force it intrinsically demands, the record compels a different result. *See e.g., General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 2), ALAB-926, 31 NRC 1, 13-14 (1990). However, a finding by a Licensing Board will not be overturned simply because a different result could have been reached. *See Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant, Unit 2), ALAB-254, 8 AEC 1184, 1187-1188 (1975). Generally, as stated in this proceeding, the Commission normally attaches "significance to [the presiding officer's] evaluation of the evidence." *Hydro Resources, Inc.* (Crownpoint Uranium Project), CLI-00-12, 52 NRC 1, 3 (citations omitted). Thus, the Commission generally does not "second-guess" a Presiding Officer's "reasonable findings." *Id.*

The Commission's denial of review of a particular decision simply indicates that the appealing party "identified no 'clearly erroneous' factual finding or important legal error requiring Commission correction." *Hydro Resources, Inc.* (Crownpoint Uranium Project), LBP-06-01, 63 NRC 41, 59 n.15 (2006), *aff'd*, CLI-06-14, 63 NRC 510 (2006) (*citing Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 3 (2000) (*quoting* 10 C.F.R. § 2.786(b)(4), now § 2.341(b)(4))). Where the Presiding Officer has reviewed an extensive record in detail, with the assistance of a technical advisor, the Commission is generally disinclined to upset his findings and conclusions, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be

weighed. *Hydro Resources, Inc.* (Crownpoint Uranium Project), CLI-01-04, 53 NRC 31, 45-46 (2001).

IV. ARGUMENT

Prior to addressing the substantive questions raised in its Petition, CI raises a procedural question by stating that the Licensing Board “improperly withheld an initial decision and refused to rule on Contention 1A & 1B thereby depriving the Tribe and tribal members from an opportunity to appeal the Board’s decision.” CI Petition at 2. However, this question is answered both by Powertech’s May 26, 2015, Petition for Review and by express statements in LBP-15-16.

A. Claims Regarding Licensing Board Jurisdiction and License Revocation Under Contentions 1A and 1B

Initially, as argued in Powertech’s May 26, 2015, Petition and supported by NRC Staff’s Petition, a Licensing Board’s resolution of all contentions in a given proceeding is tantamount to an initial decision resulting in termination of the proceeding. The Commission supported this determination by stating,

“The courts of appeals have repeatedly approved our practice of closing the hearing record after resolution of the last ‘live’ contention, and of holding new contentions to the higher ‘reopening’ standard.”

Virginia Electric and Power Company, CLI-12-14, 75 NRC 692 (June 7, 2012), *citing N.J. Env’tl. Fed’n v. United States NRC*, 645 F.3d 220, 232-33 (3d Cir. 2011); *State of Ohio v. Nuclear Regulatory Comm’n*, 814 F.2d 258, 262-64 (6th Cir. 1987); *Oystershell Alliance v. U.S. Nuclear Regulatory Comm’n*, 800 F.2d 1201, 1207-08, 255 U.S. App. D.C. 176 (D.C. Cir. 1986).

Further, administrative orders generally are final and appealable if they impose an obligation, deny a right, or fix some legal relationship as a consummation of the administrative process.

Sierra Club v. NRC, 862 F.2d 222, 225 (9th Cir. 1988). In the instant case, the Licensing Board specifically states that Contentions 1A and 1B were “resolved” in a manner adverse to Powertech

and NRC Staff and identified its perceived flaws in NRC Staff's compliance with NEPA¹⁰ and the NHPA. LBP-15-16 at 112. Indeed, under LBP-15-16, the Licensing Board imposes an obligation on NRC Staff to open a "government-to-government" consultation *solely* with the Tribe and, by implication, imposes an obligation on Powertech, as a consulting party and proprietor of access to the Project site, to provide such access to the Tribe for site identification purposes. *Id.* Based on this language and the fact that the Licensing Board articulated legal interpretations of NEPA and the NHPA and applied such interpretations to NRC Staff's actions represents a final decision on compliance and, thus, should be subject to a direct appeal under 10 C.F.R. § 2.341.¹¹

Further, LBP-15-16's express language supports this conclusion. For example, the Licensing Board states:

"Accordingly, as to Contention 1A, the Board *finds and concludes* that the FSEIS has not adequately addressed the environmental effects of the Dewey-Burdock

¹⁰ See 42 U.S.C. § 4321-4347.

¹¹ Even if the Commission agrees that the Licensing Board can retain jurisdiction over Contentions 1A and 1B, contrary to CI's position, Powertech asserts that the Commission should grant review of Powertech's Petition for Review under the standard for interlocutory appeals. See 10 C.F.R. § 2.341(f). Under Part 2.341(f)(2), the Commission may grant interlocutory review, absent a referral or certification from a Presiding Officer, if a ruling:

- (i) Threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or
- (ii) Affects the basic structure of the proceeding in a pervasive or unusual manner.

Powertech believes that the argument presented below demonstrates that the licensee is adversely affected by the ruling in that two (2) agencies with additional permitting authority for the Project, the United States Environmental Protection Agency (EPA) and the State of South Dakota Department of Environment and Natural Resources (SDDENR) have indicated they will not complete permitting decisions until the NRC administrative proceeding is finally resolved. Further, the Licensing Board's attempt to retain jurisdiction will prejudice both Powertech and NRC Staff by subjecting its actions to direct Board oversight. Thus, the Commission should, in the alternative, grant interlocutory review under 10 C.F.R. § 2.341(d)(4)(iv).

project on Native American cultural, religious and historic resources....Contention 1A is *resolved* in favor of the Oglala Sioux Tribe and the Consolidated Intervenors.”

LBP-15-16, slip op. at 40, 112 (emphasis added).

The Licensing Board also states that,

“As to Contention 1B, the Board *finds and concludes* that the consultation process between NRC Staff and the Oglala Sioux Tribe was inadequate....We therefore *conclude* that additional consultation between the NRC Staff and the Oglala Sioux Tribe is necessary....Contention 1B is *resolved* in favor of the Oglala Sioux Tribe. Meaningful consultation as required by statute has not occurred.”

Id. at 42-43, 112 (emphasis added).

The plain language of these statements is in direct contrast to the Licensing Board’s statements that it retained jurisdiction over the final resolution of Contentions 1A and 1B. *Compare* LBP-15-16 at 114. Based on the Commission precedent discussed above and the express language of LBP-15-16, the Licensing Board’s determinations on Contentions 1A and 1B can be the subject of a direct appeal to the Commission. Therefore, since they did not appeal the substance of these contentions, CI’s failure to offer a Petition for Review on Contentions 1A and 1B should preclude its ability to raise such concerns at a later date.

CI also claims that the Licensing Board should have revoked Powertech’s NRC license based on its determination on Contentions 1A and 1B. CI claims that “consultation is a necessary part of a NEPA FSEIS.” CI Petition at 6. However, CI presents no case law, regulation or other guidance or policy from NRC or the Advisory Council on Historic Preservation (ACHP) that requires consultation in a 10 CFR Part 51 environmental review document, such as an FSEIS.¹² On the contrary, as stated multiple times by Powertech in its pleadings before the Licensing Board, the Council on Environmental Quality’s regulations

¹² It is important to note that in fact NEPA has no consultation requirement on historic and cultural resources. Consultation is only required under the NHPA.

encourage performing NHPA Section 106 activities in conjunction with an agency's NEPA review but do not require it:

“To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*), the National Historic Preservation Act of 1966 (16 U.S.C. 470 *et seq.*), the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), and other environmental review laws and executive orders.”¹³

This regulation does not mean that consultation needs to be included in the FSEIS itself; but rather, such information needs to be documented in the ROD. However, as stated in Powertech's May 26, 2015, Petition for Review, all of the information obtained through the NHPA Section 106 process from its inception was included, as it became available and was assessed, in the DSEIS, the FSEIS, and the final ROD. This procedure followed by NRC Staff is consistent with CEQ regulations and is sufficient to satisfy NEPA requirements.¹⁴

Further, CI's claim that the Licensing Board should have revoked Powertech's license ignores the fact that it did not avail itself of the opportunity to file for a stay of the effectiveness of such license within ten (10) days of the issuance of LBP-15-16. Neither CI nor the Tribe attempted to petition the Commission or the Licensing Board to stay the effectiveness of Powertech's license and, thus, the Licensing Board's judgment to maintain the effectiveness of the license remains unchallenged. Additionally, as noted above and as stated in its request for expedited review of its May 26, 2015, Petition, Powertech still cannot proceed with development

¹³ 40 C.F.R. § 1502.25(a).

¹⁴ CI also alleges that NRC Staff “routinely engages in the practice of issuing licenses immediately, usually within a week, of releasing final NEPA documents, even in cases where an ASLBP action has already commenced.” CI Petition at 8. However, not only does CI not offer any evidence to support this claim, but such a claim is directly in conflict with the actual timeframes for the five (5) ISR operating licenses issued by NRC Staff since the inception of NUREG-1910 entitled *Generic Environmental Impact Statement for In Situ Leach Uranium Milling Facilities*: (1) Dewey-Burdock (over 2 months after FSEIS issuance); (2) Ross (approximately 2 months after FSEIS); (3) Hank and Nichols Ranch (approximately 6 months after FSEIS issuance); (4) Moore Ranch (approximately 6 weeks after FSEIS issuance); and Lost Creek (approximately 2 months after FSEIS issuance).

of the Dewey-Burdock ISR Project until it obtains additional permits from the United States Environmental Protection Agency (EPA) and the State of South Dakota. These agencies essentially have stated that they do not plan to issue final permits or to conduct administrative hearings until NRC action on Powertech's license is substantially complete. Thus, even if CI had petitioned for a stay of the effectiveness of Powertech's license, there could be no showing of irreparable harm to cultural resources. Therefore, the Licensing Board's action to maintain the effectiveness of Powertech's license is not in error.

B. Claims Regarding Prior Licensing Board Rulings in LBP-10-16

CI makes a general allegation that the Licensing Board erred in LBP-10-16 when it failed to admit Contention D on the organization of Powertech's license application under 10 CFR § 40.9. CI Petition at 2-4. First, CI's allegation is inaccurate, as the Licensing Board did not rule the entirety of CI's proposed Contention D inadmissible. Actually, the portions of Contention D dealing with the license application's organization and clarity were denied, while the portions dealing with baseline groundwater quality and confinement were admitted. *See* LBP-10-16 at 37. Regarding the Licensing Board's finding in LBP-10-16 on organization and clarity, based on the *Hydro Resources, Inc.* case, such issues cannot be said to be germane to the licensing process. *See* LBP-10-16 at 37¹⁵. The Licensing Board also found against similar claims in CI's proffered Contentions H and Contention I(A), finding that these contentions were inadmissible, because CI failed to provide references to specific sources and documents on which CI intended to rely to support its position that the license application "fails to provide specific analyses and

¹⁵ "According to the Board in *Hydro Resources, Inc.*, '[a]ny area of concern is germane if it is relevant to whether the license should be denied or conditioned.' The organization or format of an application was not considered by that Board to be germane because the objection to the application's organization was not an objection to the licensing action at issue in the proceeding." LBP-10-16 at 37, *citing* LBP-98-09, 47 NRC 261, 280 (1998).

omits the disclosure of adverse information.”¹⁶ See LBP-10-16 at 47 & 51. CI offers no regulatory justification or rulemaking provisions that would be in conflict with the Licensing Board’s findings on these contentions or that would overturn the *Hydro Resources, Inc.* case and its use by the Licensing Board in this context. Thus, the Commission should not reverse the Licensing Board’s determinations on the admissibility of these contentions.

CI also addresses the standing issues in the contentions phase of this proceeding when it claims that residents of Rapid City, South Dakota should have been granted standing based on potential drawdown in groundwater quantity. See CI Petition at 2. CI claims that these residents should have been granted standing based on drawdown from the Dewey-Burdock ISR Project potentially affecting Rapid City water sources. *Id.* However, in LBP-10-16, the Licensing Board specifically addressed these parties’ potential standing based on this issue by concluding that these parties did not allege a plausible pathway¹⁷ from which injury-in-fact could be derived based on their use of a different water source (Madison or Minnelusa aquifers) than that in which Powertech proposes to conduct ISR (Inyan Kara aquifer) and their distance from the Project (more than 70 miles away). See LBP-10-16 at 18. The Licensing Board supported its reasonable conclusion on their standing based on several factors including, but not limited to: (1) the separation of the Madison and Minnelusa aquifers from the Inyan Kara aquifer (production zone) by the Morrison Formation and other confining layers and (2) the location of the parties upgradient with respect to groundwater flow from the Dewey-Burdock ISR Project. See *id.* at

¹⁶ The same argument applied to Contention I(A) was also used by the Licensing Board for CI’s proffered Contention I(B). See LBP-10-16 at 51.

¹⁷ CI attempts to justify its argument by claiming that standing was denied to these parties because “they are residents in a city that has a municipal water supply.” CI Petition at 7-8. However, the Licensing Board’s determination dealt solely with the lack of a plausible pathway due to the distance of these parties from the Project, the confining units in the subsurface between the production zone and the water sources, and groundwater flow direction. See LBP-10-16 at 18-19.

18-19.¹⁸ Further, Contention 4 was admitted on groundwater quantity impacts, and the Licensing Board ruled in favor of Powertech and NRC Staff after considering all argument and testimony within the scope of that contention. More specifically, the Licensing Board based its reasonable conclusion on Contention 4 in part on the fact that SDDENR evaluated Powertech’s application for a supply well in the Madison aquifer and ISR production wells in the Inyan Kara aquifer and found that withdrawals at the approved rates will not: (1) result in annual withdrawals that exceed the average annual recharge to such aquifers; (2) that there is a reasonable probability that unappropriated water is available in the aquifers to supply the proposed appropriations; and (3) that there is a reasonable probability that such withdrawals can be made without unlawful impairment of existing water rights or domestic wells. *See* LBP-15-16 at 80-81. The Licensing Board also considered “many examples in the FSEIS of the NRC Staff’s analysis of consumptive use and groundwater impacts above and beyond the SDDENR’s water rights permit application.” *See id.* at 81.¹⁹ Thus, the Licensing Board’s determination that CI’s argument on standing for Rapid City residents is not sufficient is reasonable and should not be disturbed.

C. Claims Regarding Alleged Trust Responsibility Violations

CI’s Petition includes two (2) allegations regarding the Licensing Board’s alleged violation of the federal government’s trust responsibility to the Tribe. The first allegation is embodied by CI’s statements that the Licensing Board determined that the Tribe should be punished for acting “unreasonably.” *See* CI Petition at 2, fn. 3, *citing* LBP-15-16 at 44. CI’s allegation is misguided as the Licensing Board simply stated that the Tribe “bears some

¹⁸ The Licensing Board also noted that, while they were not granted standing as individuals, these parties are members of organizations that would represent their interests in the proceeding (especially considering Contention 4 on groundwater quantity impacts was admitted). *See* LBP-10-16 at 21, fn. 97.

¹⁹ For example, NRC Staff considered the results of numerical groundwater model simulations provided in the license application, reviewed and verified Powertech’s groundwater model and calibration, and constructed its own 3-layer model to evaluate the potential impacts on the Madison aquifer. *See id.* at 81-82, fn. 425.

responsibility” for the current status of cultural resource information and consultation. *See* LBP-15-16 at 44. The Licensing Board also determined that some of the Tribe’s previous demands during the Section 106 process were “patently unreasonable.” *See id.* at 42. The second allegation is embodied in CI’s statements that the Licensing Board presumes that the Tribe will act “unreasonably” in the future. *See* CI Petition at 3. This statement is a mischaracterization of LBP-15-16, as the Licensing Board merely states that Tribe demands going forward that are “unreasonable” or Tribe refusal to engage in future consultation would be incompatible with an orderly administrative process. *See* LBP-15-16 at 44, fn. 236. Each of these allegations questions the Licensing Board’s findings of fact based on pleadings and testimony offered by all parties on the actions performed during the Section 106 process and NRC Staff’s process of preparing the FSEIS. CI’s allegations are nothing more than unsubstantiated claims with no citations to any legal or regulatory provisions that would invalidate the Licensing Board’s determinations on these matters. Given that the Commission typically does not disturb the findings of fact of the Licensing Board absent a clear error, Powertech asserts that CI’s allegations do not rise to the level of a clear error of law or fact and do not constitute reversible error.

D. Burden of Proof Allegations

CI alleges that the Licensing Board impermissibly shifted the burden of proof in this proceeding to CI and required a higher standard of proof than a simple “preponderance of the evidence” standard with respect to alleged faults or fractures. *See* CI Petition at 4. Initially, CI’s claim that the burden of proof was shifted to them instead of to NRC Staff (and, by implication, Powertech) is incorrect. Contention 3 addresses the potential presence of faults or fractures that could promote fluid migration from the Dewey-Burdock wellfields to adjacent water sources and

was considered both a safety and an environmental contention. On the safety issue, as noted above, CI never availed itself of the opportunity to challenge NRC Staff's SER, which memorialized the safety findings of NRC Staff based on Powertech's license application and its own safety analyses. Thus, CI's pleadings and testimony cannot challenge the safety findings on potential fluid migration due to faults and fractures in the ROD and, thus, burden of proof here is irrelevant.

On the environmental side, the burden of proof is on NRC Staff to justify its findings in the FSEIS on this issue, but CI was never relieved of the responsibility to present its own case challenging those findings. In the context of the presentations offered by all parties on this issue, LBP-15-16 expressly documented the Licensing Board's extensive review of the *factual* aspects of the evidentiary hearing and all accompanying pleadings and testimony on this issue. Pages 69-71 of LBP-15-16 documents several factual findings by the Licensing Board on issues related to alleged faults or fractures, including but not limited to: (1) the continuity and thickness of the Fuson Shale, which has not been challenged by Intervenor's witnesses; (2) the compelling nature of the potentiometric surface differences showing that the Chilson and Fall River aquifers are not freely connected by natural pathways; (3) the fact that one or more unplugged boreholes in the "alkali area" are the most likely cause of leakage in the vicinity of pump tests rather than natural features such as faults;²⁰ (4) the determination that the Fuson Shale is geophysically distinct and no evidence that faults produced any significant displacement was offered; and (5) that NRC Staff fence diagrams constructed using closely spaced borehole logs show that areas where CI alleged faults are present represented "particularly convincing evidence for a lack of significant

²⁰ In addition to the known presence of potential unplugged boreholes in the "alkali area," Powertech witness Mr. Lawrence testified that a likely cause of leakage during the pump tests is a nearby well that is known to be completed in both the Fall River and Chilson Aquifers. See Powertech Exhibit APP-037 at 35-36.

faulting in that part of the project area.” *See* LBP-15-16 at 69-71. As stated in *Hydro Resources, Inc.*, where a Licensing Board’s decision rests on carefully made factual findings, including expert testimony, the Commission typically will not disturb the decision. *See* CLI-01-04, 53 NRC at 45. Absent a showing of a clear error of fact, which CI has failed to proffer, the Commission should not disturb LBP-15-16 on these issues.

E. Witness Testimony on Groundwater Migration

CI offers an allegation on Powertech’s expert witness, Hal Demuth’s, testimony regarding the conduct of ISR operations in wellfields where faults may be present. CI alleges that the Licensing Board erred when it agreed with Mr. Demuth’s testimony that “ISR operations have operated successfully in areas where faults cut the ore body.” CI Petition at 5, *citing* LBP-15-16 at 71. CI also alleges that a discussion of Mr. Demuth’s testimony is the key piece of evidence that the Licensing Board relies upon when determining that there would be no impacts from the potential presence of faults. *Id.* at 5-6.

CI’s allegations do not rise to the level of a clear error of law that warrants reversal of the factual findings by the Licensing Board on this issue. As stated above, the Licensing Board explicitly evaluated pleadings and expert testimony regarding this issue and determined that, as a matter of fact, Powertech’s and NRC Staff’s witnesses provided adequate testimony and evidence to show that faults and fractures in the area of the Project will not result in fluid migration from the Project’s wellfields. *See* LBP-15-16 at 69-71. As stated above, the administrative record contains an abundance of evidence that there are no faults or fractures present in the Dewey-Burdock ISR Project that have the potential to provide pathways for groundwater to migrate between aquifers.²¹ In addition, Mr. Demuth’s testimony was in direct

²¹ Other evidence considered by the Licensing Board in its determination that there is no evidence that faults and joints provide pathways for groundwater to migrate between aquifers includes: (1) a site-

response to CI witness Dr. LaGarry's testimony that mining companies would not specifically be looking for faults and typically would not find them. *See* August 19-21, 2014 Evidentiary Hearing Transcript at 1077. Indeed, Mr. Demuth specifically stated that "a thorough understanding of the subsurface geology is really key to that" when referring to Powertech's ability to conduct ISR operations. *Id.* at 1079. Again, CI is attacking factual findings made by the Licensing Board on technical issues evaluated by NRC Staff in its SER, which CI did not challenge, and testimony offered by expert witnesses from Powertech and NRC Staff. CI has offered no substantive evidence showing that the Licensing Board's findings were not reasonable and, thus, the Commission should not disturb the Licensing Board's findings on this issue in LBP-15-16.

The testimony of Powertech witnesses Mr. Demuth and Mr. Errol Lawrence and NRC Staff witness Mr. Lancaster also supports the conclusions found by the Licensing Board that there are adequate controls in place pre-operations to address the potential site-specific impacts of any faults that might be present at *any* ISR project site.²² Further, evidence was presented by Powertech witnesses (Lawrence & Demuth) that showed pump test activities in relation to a known fault were performed at another ISR project supporting Mr. Demuth's statements. *See* Powertech Exhibit APP-037 at 36, ¶ A.86, describing how a pump test was conducted

specific U.S. Geological Survey study of groundwater quality that supports the conclusion that no significant transfer of water between aquifers has occurred, (2) testimony that pumping tests showed no communication between the production zone aquifer and the underlying Unkpapa aquifer, and (3) the requirements to conduct post-license pump tests and monitor the overlying aquifer to identify any lack of confinement, *See* LBP-15-16 at 60, 68, 92.

²² *See* August 19-21, 2014 Evidentiary Hearing Transcript at 954 (Lawrence): "Once they get ready for production, they will have even more data points within that area. They will conduct pump tests. They will have a monitoring well around the entire wellfield, monitoring points above and below. So the additional data is still to come. That's the phased process for conducting ISR." *See also* August 19-21, 2014 Evidentiary Hearing Transcript at 1012-1013 (Demuth), describing how pump tests are conducted on an individual wellfield scale prior to operations to demonstrate confinement above and below. *See also* August 19-21, 2014 Evidentiary Hearing Transcript at 1022 (Lancaster), describing how communication between aquifers would be manifested during a pump test.

specifically to evaluate the impacts of a fault at the Lost Creek ISR Project; *see also id.* at 37, ¶ A.89, describing how Mr. Lawrence developed the groundwater model used in licensing the Lost Creek ISR Project; *see also* Powertech Exhibit APP-013 at 3, ¶¶ A.3-A.5 describing how Mr. Demuth was involved with groundwater characterization at the Lost Creek ISR Project. Based on the administrative record, CI's attempt to attack the factual findings of the Licensing Board in LBP-15-16 is not supported by the available evidence and should be dismissed.

IV. CONCLUSION

For the reasons discussed above, Powertech respectfully requests that the Commission deny CI's Petition for Review in its entirety and find that Powertech's NRC License SUA-1600 should be upheld.

Respectfully Submitted,

**/Executed (electronically) by and in
accord with 10 C.F.R. § 2.304(d)/
Christopher S. Pugsley, Esq.**

Dated: June 22, 2015

Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Pugsley, PLLC
1225 19th Street, NW, Suite 300
Washington, DC 20036
COUNSEL TO POWERTECH (USA), INC.

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

POWERTECH (USA), INC.

(Dewey-Burdock In Situ Uranium Recovery
Facility)

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) Docket No.: 40-9075-MLA

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) Date: June 22, 2015
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing “**BRIEF OF POWERTECH (USA), INC. IN OPPOSITION TO CONSOLIDATED INTERVENORS’ PETITION FOR REVIEW OF LBP 15-16**” in the above captioned proceeding have been served via the Electronic Information Exchange (EIE) this 22nd day of June 2015, which to the best of my knowledge resulted in transmittal of the foregoing to those on the EIE Service List for the above captioned proceeding.

Respectfully Submitted,

**/Executed (electronically) by and in
accord with 10 C.F.R. § 2.304(d)/
Christopher S. Pugsley, Esq.**

Dated: June 22, 2015

Anthony J. Thompson, Esq.
Christopher S. Pugsley, Esq.
Thompson & Pugsley, PLLC
1225 19th Street, NW, Suite 300
Washington, DC 20036
COUNSEL TO POWERTECH (USA), INC.